

Patent Claims

1. A high-voltage power breaker having an interrupter unit which is enclosed, with a gap, by a gas-tight housing (16) filled with quenching gas, with the interrupter unit having two arcing contacts (1,2), at least one of which can be driven during a switching operation and with any arc which is produced between the arcing contacts (1,2) during disconnection being blown by means of a blowing device (5,6) with the quenching gas, which afterwards at least partially flows away in the axial direction of the arcing contacts (1,2) and with a flow deflection device (9,10,11) which is not the same as the blowing device (5,6), being provided in the outlet-flow area of the quenching gas, in order to deflect the quenching gas flow through more than 90° radially outward, and a partition wall (18) is provided in order to separate the quenching gas flow before the deflection from the quenching gas flow after the deflection,  
characterized in that a nozzle body (11) is arranged on the partition wall (18) and, together with the flow deflection device (9,10,11), forms a nozzle constriction (12).  
2. The high-voltage power breaker as claimed in claim 1,  
characterized in that the nozzle body (11) has a convex area, which faces a concave area of the flow deflection device (9,10,11).  
3. The high-voltage power breaker as claimed in claim 2,

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characterized in that  
the flow direction device (9,10,11) and the  
partition wall (18) are cylindrically symmetrical,  
and are arranged coaxially with respect to the  
arcing contacts (1,2).  
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4. The high-voltage power breaker as claimed in one of the preceding claims,  
characterized in that,  
in the sense of the quenching gas flow, a  
5 quenching gas cooling device (13) in the form of a body having through-openings is arranged downstream of the deflection device (9,10,11).
5. The high-voltage power breaker as claimed in one  
10 of the preceding claims,  
characterized in that  
the quenching gas cooling device (13) is cylindrically symmetrical.
- 15 6. The high-voltage power breaker as claimed in one of the preceding claims,  
characterized in that  
a further deflection device for the quenching gas  
20 is arranged downstream of the quenching gas cooling device (13).
7. The high-voltage power breaker as claimed in one of the preceding claims,  
characterized in that  
25 the flow deflection device (9,10,11) and/or the nozzle body (11) are/is composed of an insulating material, in particular PTFE or PVDF (polyvinylidene fluoride).